

subtruncate. Forceps as long as the elytra, moderately slender and incurved and armed on the inner side on the basal half with three or four variable sized teeth, the type specimen having four minute teeth on the right branch and two larger and one small one on the left. Legs moderately long; femora considerably swollen; tarsi covered, especially below, with fine long hairs, the second segment spatulately prolonged beneath the third for half its length. Color, light brownish; antennæ, front of head, tips of the elytra and the dorsal surface of the abdomen a little darker and the projecting portions of the wings lighter. Length, exclusive of the forceps, 7 mm.; antennæ, 7 mm.; elytra, 2 mm.; forceps, 2 mm.

One male, Bacoór, Prov. Cavite, Luzon, P. I.; P. L. Stangl, collector.

Type. — No. 7885, U. S. National Museum.

An additional male from Bacoó, Mindoro, apparently belongs here though the third, fourth and fifth segments of the antennæ are somewhat more elongate and the size is greater, the length, exclusive of the forceps, being 8 mm. and the forceps themselves proportionately longer, measuring 3.5 mm.

This species is apparently very little allied to the only other species of the genus known* but according to deBorman's table † it evidently belongs here.

Class III, ARACHNIDA.

Order II, ARANEIDA.

NEW GENERA AND SPECIES OF NEARCTIC SPIDERS.

BY NATHAN BANKS,

WASHINGTON, D. C.

(PLATES V AND VI.)

The following pages contain descriptions of some new spiders from the United States, and of a few new genera. These have been found in the course of going over my collection in the preparation of a generic synopsis of our spiders, and a catalogue of the species. Probably another similar paper will follow as the work proceeds.

* *A. longiforceps* Karsch, Berl. Ent. Zeit., XXX, p. 89, pl. 3, f. 7, ♂ (1886).

† Das Tierreich, II, 1900.

Notes on a few described species are added, and in some cases figures of some of their important parts.

Gnaphosa utahana, new species.

Cephalothorax yellow to red-brown, the dark **V**-mark indistinct; mandibles more reddish; legs pale yellowish, metatarsi and tarsi more red-brown; sternum and mouth parts red-brown; abdomen yellowish-brown to brown, rather paler below; spinnerets yellowish. Cephalothorax of usual shape, broad in front, dorsal groove distinct. Legs rather stout, black-haired, no spines under tibiae I and II, one pair near base of these metatarsi; tibiae III and IV with 3-3 spines below, and others on sides. Sternum about one and a half times longer than broad, pointed behind. Abdomen about one and a half times longer than broad, much depressed. Posterior eye-row strongly recurved, much longer than anterior row; P. M. E. oval, more than long diameter apart, more than twice as far from larger P. S. E.; A. M. E. about diameter apart, much closer to larger A. S. E. Length, 7 mm.

Silver Lake, Utah (Skinner).

Zelotes aprilius, new species.

Cephalothorax pale yellowish-brown, basal joints of legs similar (as also mandibles); tibia, metatarsus, and tarsus red-brown. Abdomen dark, with a large black spot, covering posterior half, and extending forward in the middle to near base, about one third way from base it gives off a branch each side containing a pale muscular impression, rest of base whitish, abdomen and cephalothorax black-haired, a heavy row of bristles on base of latter. Venter pale, with a blackish **U**-mark behind; sternum and coxae pale; all legs with long black hairs. Cephalothorax rather slender narrow in front; eye-region occupying not one half of width of front; the two rows rather widely separate; posterior barely longer than anterior, slightly procurved, P. M. E. large, oval, and almost touching, A. M. E. not half their diameter apart, closer to A. S. E., which are barely larger. Dorsal groove distinct. Sternum one and a half times longer than broad, broadest at coxae II, tapering and pointed behind. No spines under tibiae I and II, a pair under base of these metatarsi; hind tibiae and metatarsi with many spines, but none above. Abdomen fully twice as long as broad, much depressed, truncate at base. Length, 5.5 mm.

From Chevy Chase, Maryland, near Washington, D. C., April, under leaves.

Herpyllus californicus, new species.

Cephalothorax red-brown, mandibles and sternum similar; legs rather paler, especially on tarsi; abdomen dark gray above and below, rather paler on base below. Cephalothorax broad behind middle, narrow in front; dorsal groove distinct; eye-region occupying about one half of width; eye-rows rather widely separate, posterior row straight, barely recurved, P. M. E. oval, more than longest diameter apart, about as far from much larger P. S. E.; A. M. E. large, one half diameter apart, still closer to rather smaller A. S. E. Abdomen large and long, truncate at base. Legs rather slender; metatarsi and tarsi I and II heavily scopulate; one spine at tip under tibiae I and II; one spine above on base of tibiae III and IV, three pairs

under tibiae III and IV, others on sides. Sternum once and one half broader than long, broadest at coxae II, tapering in front and behind. Length, 12 mm.

One female from Lakeside, California.

Syspira pallida, new species.

Cephalothorax pale yellowish, a brown mark each side on anterior furrows, and fainter ones on other furrows, a blackish patch behind side eyes, and one in middle of head. Legs pale yellow, the femora faintly barred above near tip with blackish, and the hind tibiae at base and near tip. Mandibles yellow-brown; sternum and venter yellowish; abdomen gray. Legs rather slender, 3-3 spines under tibiae I and II, metatarsi and tarsi I and II scopulate; tibiae III and IV with two spines above, and 3-3 below. Anterior eye-row straight, A. M. E. large, about one half diameter apart, much closer to smaller A. S. E., quadrangle of M. E. nearly square; posterior eye-row weakly recurved, barely longer than anterior row. P. M. E. about diameter apart, and a trifle farther from the much larger P. S. E., latter not their diameter from A. S. E. Sternum but little longer than broad, broadest behind coxae II, broadly rounded behind. Abdomen about one and one half times longer than broad. Length, 12 mm.

One immature specimen from Mesilla Park, New Mexico, 29 January, in a hole in the ground (Cockerell). The only species of this Mexican genus yet recorded from our country.

Lophocarenum frontalis, new species.

Male; cephalothorax yellowish-brown; abdomen black; legs yellowish; P. M. E. more than diameter apart, closer to P. S. E., posterior eye-row slightly recurved. All eyes situate on a large cephalic hump, broadly truncate behind, and connected in front to another hump which projects forward much in front of the mandibles. Legs slender and hairy. Sternum triangular, about as broad in front as anywhere. Female differs from male in reddish-brown cephalothorax, and the posterior eye-row straight, the P. M. E. but little more than diameter apart. Length, ♀ 1.6 mm.; ♂ 1.4 mm.

Taken at Falls Church, Va., under stones in the woods.

Epeira emertoni, new species.

A small species of the size of *E. prompta*, but with the abdomen not high at tip, more convex above, and with a pale median stripe on venter like *E. labyrinthica*; there is, however, no pale spot in black sternum. The abdomen shows a rather broad folium above tapering behind, margined with pale and with a darker central stripe; this folium does not reach base, which is quite pale in the middle. Cephalothorax is pale in middle, dark on sides. The legs are pale, and short; the femora banded with brown near tips, and the tibiae less distinctly so. The epigynum shows a recurved pointed figure much as in *E. prompta*. The abdomen is not so pointed as in *E. prompta* and *E. vespa*, nor so high at tip.

Sea Cliff, N. Y.; Washington, D. C., and Auburn, Ala. After his description of *Epeira mormon*, Keyserling speaks of a specimen from the District of Columbia which had a pale median mark on the

venter; this perhaps refers to the present species which has the marks on abdomen somewhat similar; the *E. mormon* from Utah, however, has a different epigynum, differently marked legs, and belongs to a different section of the genus.

Xysticus texanus, new species.

Cephalothorax pale yellowish in middle, with a narrow median brown line; eye-region dusky; a broad rich brown stripe covering the entire sides, unbroken by any markings; mandibles pale yellowish, legs pale yellowish, tibia I jet black, a little black on tip of patella, and tibia II blackish; a pale line above on tibiae I and II, rest of legs wholly pale and unmarked. sternum and venter pale, abdomen dark grayish-brown above, more blackish around edges, in basal part are two white spots, and behind are several whitish transverse lines. Cephalothorax broad and heavy; quadrangle of M. E. plainly broader than high, A. M. E. rather farther apart than to much larger A. S. E.. P. M. E. as close to each other as to larger P. S. E. Anterior legs rather short and heavy, tibia I with 5-5 spines below, metatarsus I with 4-4 or 5-5 spines below, all spines short. Length, 5 mm.

One specimen from San Antonio, Texas.

Readily separated by black front tibiae and uniform dark sides of cephalothorax.

Misumessus, new genus.

A Thomisid allied to *Misumena*, but differing in having large and prominent spines on femora I and II, and above on tibiae I and II; cephalothorax and abdomen more spiny than in *Misumena*. It differs from *Dica* in having the tubercles of S. E. joined by a rounded ridge, and in that the P. S. E. are not larger than the P. M. E.

Type. — *M. oblonga* Keys.

Includes also *M. asperata* Hentz, *M. viridans* Bks., *M. bellula* Bks., *M. pictilis* Bks., and the following.

Misumessus pallidulus, new species.

Cephalothorax grayish on sides, whitish in middle. Abdomen white, with three pairs of small irregular black marks behind, legs, sternum and venter whitish. Cephalothorax and abdomen with many erect spines, one below each P. S. E. is very large, six on clypeal margin, two large ones on mandibles in front; about 3 or 4 large ones on femora I; two above on tibiae I and II; four pairs below tibiae I and II; six pairs below metatarsi I and II; besides these large spines, the legs have many small spines or stiff bristles. Length, 4.5 mm.

San Francisco, Calif. Differs from *M. pictilis* in markings of abdomen, and more spiny cephalothorax and legs.

Tmarus minutus, new species.

Cephalothorax reddish, in female unmarked, in male with three pale lines converging behind, one median and one each side from P. S. E.; S. E. on large white tubercles. Mandibles reddish; abdomen of female reddish, unmarked; of male yel-

lowish, with a faint brown stripe each side. Venter pale, with a white line each side; sternum and legs pale yellowish, unmarked. Cephalothorax longer (proportionately) than in *T. caudatus*, high till near abdomen, then suddenly falls off. Abdomen truncate at base, about twice as long as broad, but little broader in middle, pointed behind, slightly, although distinctly elevated in a small cone in female, in male simply high at tip. Legs slender, but rather short, very hairy, with but few spines, most prominent on metatarsi I and II. Length, male, 2.4 mm.; female, 3 mm.

Several specimens taken near Washington, D. C. in May, under rubbish on the ground. Distinct by its much smaller size as well as other characters. One specimen has the sides of cephalothorax and abdomen dark-brown.

Apollophanes texana, new species.

Cephalothorax yellowish, slightly mottled with brown on sides, and two approximate dark marks on base of cephalic part, clypeus and mandibles pointed with brown; legs pale yellow and pointed and spotted with brown, especially on femora and tibiae; these markings faintly indicate a subapical band on femora and a basal band on tibiae. Sternum and venter pale. Abdomen pale, with a basal brown spear-mark, and behind two more or less connected rows of blackish spots. Cephalothorax but little longer than broad, scarcely noticeably so. Abdomen about twice as long as broad. Legs long and slender; leg I a little longer than IV, tibia I with 3-3 spines beneath, the last short and apical; sternum as broad as long; hind coxae separate. Eyes of posterior row strongly recurved, and about equidistant; A. S. E. a trifle closer to P. M. E. than to A. M. E. Length, ♀ 6 mm., ♂ 5.2 mm.

One pair from San Antonio, Texas. Differs from the two Mexican species in larger palpal organ, and less slender process at tip of tibia, and the style is longer.

Scaptocosa, new genus.

Differs from *Lycosa* and *Trochosa*, as well as our other Lycosids in lacking spines above on tibiae III and IV, either at base or middle; these joints being clothed above with long hair. Head high and large, sides sloping; anterior eye-row scarcely wider than second row; eyes of second row scarcely diameter apart. Tibia I densely hairy below, with 3-3 spines, tibiae IV with 2 short spines on each side. Spinnerets all short, subequal.

Type. — *Lycosa arenicola* Scudder (*nidifex* Marx).

Also contains *L. missouriensis* Banks (*domifex* Hancock.). This species has nothing to do with *L. fatifera* Hentz, which Hentz compares to *L. carolinensis* and says is from Massachusetts. *L. fatifera* can thus only be *L. tigrina* McCook (*vulpina* Emer., *oblonga* and *exitiosa* Bks.).

Allocosa, new genus.

Tibiae III and IV with a basal spine above; tibia I, with 3-3 short spines below; eyes of second row less than diameter apart; first row plainly wider than

second; tarsi not distinctly scopulate; spinnerets all short; cephalothorax devoid of median pale mark.

Type. — *Lycosa funerea* Hentz (*nigra* Stone).

Contains also *L. sublata* Montg., which I have from Florida.

***Lycosa apicata*, new species.**

Cephalothorax pale reddish-brown, an indistinct brown stripe each side with irregular edges, leaving a wide dorsal space, on cephalic part very broad and containing a narrow brown line each side from the posterior eyes. Eyes on black spots; mandibles red-brown; clypeus black in middle, a white stripe starting above first eye-row passing up between eyes of second row, then back on head. Legs pale yellowish; anterior femora very faintly barred with brown above; hind femora more distinctly marked; tibia IV has below two broad jet-black spots, one at base, other at tip, in both sexes; metatarsi IV black at tips. Abdomen pale brown above, thickly marked with blackish, a basal spear-mark, and spots (connected) each side and behind. Sternum, coxæ (below), and venter (wholly) jet-black. General structure of *L. riparia*; legs rather slender; tibiæ I and II with 3-3 long spines below, rather longer than width of joint. First eye-row procurved, M. E. larger than S. E.; eyes of second row not diameter apart. Length, ♂ 13 mm.; ♀ 15 mm.

Male from Tucson, Arizona, female from Brazos Co., Texas; also two broken specimens from Las Cruces, New Mexico, and immature specimens from Las Vegas, New Mexico.

***Lycosa baltimoriana* Keys., *L. lenta* Hentz.**

These two species are closely allied. The male palpi are extremely similar. There are certain color distinctions that appear constant. In *L. baltimoriana* the patellæ are dark, and black beneath; the genital area on venter is wholly pale; there is a dark line on outside of femora I and II, while hind femora are barred. In *L. lenta* the patellæ are pale beneath, the genital area on venter is dark in middle, and the femora are unmarked. *L. baltimoriana* is known to dig holes, and I have it from Rhode Island south to Virginia, *L. lenta* has not been reported to live in holes, but may do so, and is common from South Carolina into Florida and Louisiana. I have seen a Florida male which is as pale above as *Trochosa cinerea*, and evidently lived upon the white sand.

***Pardosa parvula*, new species.**

Cephalothorax rather uniform yellowish-brown, a paler median stripe; eyes on black spots. Mandibles pale yellowish-brown; sternum pale yellowish. Abdomen pale, with a basal brown spear-mark, and a large dark spot behind. Legs pale, anterior femora slightly infuscated. Male palpus with black hair on femur; snow-

white hair on patella and tibiæ, but the latter has a patch of black hair at base and at apex below; tarsus white, palpal organ reddish. Legs long and slender, with long spines. Structure similar to *P. minima*. Length, ceph., 1.8 mm.; abd., 1.5 mm.

A male from Altoona, Florida (Dobbin).

***Pardosa texana*, new species.**

Cephalothorax pale yellowish; head black and narrowly indented behind in middle; an irregular brown, curved stripe each side, leaving a very broad pale median area, broader than in any other species known to me. Clypeus and mandibles pale, unmarked. Abdomen pale, marked with black, a large oblong black spot on middle near, but not at, the base, and many irregular spots and dashes, some connected to the median spot. Legs pale, two distinct black bands on femora, two on tibiæ, metatarsi marked at base and tip, patellæ with a dark spot each side. Sternum black, with a small pale triangular spot in middle of base; lip dark, apex pale; coxæ and venter pale, unmarked. Length, 6.5 mm.; hind leg, 14 mm.

Brazos Co., Texas, several.

***Pardosa milvina* Hentz.**

Cephalothorax pale yellowish, eye-region black, two dark brown stripes extend back from eye-region, approximate behind, so as to narrow the pale median stripe. Clypeus pale, with a black spot each side; mandibles pale, with a dark band across near tips. Abdomen above brown or black, dotted with pale, and a median stripe with irregular margins from base to tip. Legs pale yellowish, spotted and banded with black; three or four bands on femora and tibiæ, less distinct beyond, and usually not distinct below; a mark above on each coxa. Sternum and venter both pale, without markings. Shape and structure similar to *P. flavipes* Keys. Length, ceph., 2 mm.; abd., 2 mm.

Brazos Co., Texas; Shreveport, La., Auburn, Ala., and elsewhere. Agrees best with *L. milvina* Hentz, of anything I know of in the South. Hentz says the under-side was pale, so he could not refer to *P. flavipes* which has a black sternum. It is a very common species south.

***Phidippus basalis*, new species.**

Cephalothorax dark red-brown, black on eye-region; mandibles nearly black, not iridescent; sternum and maxillæ dark red-brown; venter dull blackish. Legs dark red-brown, tarsi pale, and hind legs with a broad pale band on base of tibiæ and metatarsi. Clypeus with grayish hair. Abdomen black, with a broad basal band of yellow scales; behind on the sides is a transverse white spot, and between them two white dots, behind middle on the sides is an oblique white spot, and a pair of smaller ones over spinnerets. Legs rather long, with many white hairs, patellæ and tibiæ I with long whitish hair below, mostly black hair above. Length, 12 mm.

One female, from Arizona (Townsend). Distinct by basal yellow band, and four or six white spots on abdomen.

Sidusa Peckham.

This genus is near *Mæria* Koch. In our species the eye region is a little broader in front than behind, and occupies scarcely one third of the length of the cephalothorax. There are but 3-3 spines under tibia I and the basal one of inner series is near base; metatarsus IV heavily spined near base, middle, and tip; spines on patellæ III and IV; and coxæ I rather widely separate. *Astia morosa* Peckham falls in this genus, and has an epigynum extremely similar to that of certain Mexican forms. Two other species are known to me.

Sidusa arizonensis, new species.

Cephalothorax dark brown, scarcely paler behind, clothed with white and black hairs, a row of white over first eye-row, more golden below dorsal eyes. Abdomen black, with white and black appressed hairs, more golden around base. Legs pale yellowish, blackish at bases and tips of the joint. Sternum pale brownish; venter whitish, unmarked. Cephalothorax about one and one half as long as broad, broadest in middle, not depressed; eye-region one third broader than long, a little broader in front than behind. Abdomen longer than cephalothorax, about one and two thirds as long as broad, not depressed. Leg I not much thickened; spines as in the genus. Epigynum shows two large contiguous nearly circular cavities, in the inner basal part of each is a rounded reddish elevation. Length, 5 mm.

One female from Arizona (Townsend).

Sidusa borealis, new species.

Eye-region black, concave behind, thoracic part pale reddish brown, darker on posterior part; clypeus brown; mandibles brown; legs yellowish brown; leg I rather darker, and all femora darker than other joints, no bands. Abdomen black at extreme base, then a curved transverse whitish band (not very clear); behind in the middle is a broad pale stripe to tip (not very distinct); and on each side is a broad black stripe containing two white dots, one beyond middle, and the other (smaller) close to tip. Sternum and venter pale. Abdomen pointed at tip, not depressed. A row of bristles over first eye-row. Leg I not much thickened, tibia I fully three times as long as broad; all legs with many stout spine, as in the genus. Male palpi very slender, the tibia longer than tarsus, and clothed with long white hair, tarsus on outside with black hair; palpal organ simple; a short spur at tip of tibia. Length, 5-6 mm.

Two males; one from Ithaca, N. Y., the other from Falls Church, Va.

Icius texanus, new species.

Cephalothorax dark red-brown, black in eye-region, clothed with yellowish scales, and white ones over first eye-row; a white line along the lower margin. Abdomen a uniform pale brown above, with a narrow white line around base and sides, clothed with white scales. Legs pale yellow, front pair more brownish, all unmarked. Sternum pale brown; venter pale yellowish. Cephalothorax one and one half times as long as broad, broadest behind eye-region; latter broader behind than in front, occupying almost two fifths of cephalothorax; eyes of second row one half

way between dorsal eyes and A. S. E. Mandibles small, vertical. Sternum twice as long as broad; coxæ I separated by less than width of lip. Leg I not much longer than others, much thickened; 3-3 spines under tibia, the basal of inner series at basal third; 2-2 stout spines under metatarsus I; metatarsus IV spined only at tip; all legs with few hairs; no patellar spines; leg IV very slender. Epigynum shows two rather widely separate small holes and behind a group of five dark marks. Length, 4.5 mm.

One specimen from Edinburg, Texas.

Eremattus, new genus.

Allied to *Marpissa*, but differing in having but one (or none) spine under tibia I, this very short and near tip. Cephalothorax long and flat; eye-region occupying about two fifths of length, rather broader behind than in front; legs short and stout, leg I thickened; anterior coxæ separate by less than width of lip, metatarsus and tibia III and IV with a few slender spines; abdomen rather elongate, and depressed; leg I fringed beneath.

Type. — *Marpissa albopilosa* Banks.

Probably also includes *Icius piraticus* Peck.

Pellenes calcaratum, new species.

Cephalothorax much like *P. cæcatum* Htz., a median pointed black stripe, and lateral black stripes not reaching hind margin; eye-area dark brown, concave behind. Clypeus yellowish brown; mandibles black. Abdomen black above, margined with white, a pair of round white dots near middle (sometimes united) and a median spot behind. Sternum and coxæ pale yellowish; venter pale, with a median dark stripe and one fainter each side. Legs pale yellowish; femur I white below, with long white hair, dark brown in front and behind with a pale stripe above; no fringes under tibia I, no dark lines above, femur III mostly dark brown in front; femur IV dark at tip, also patella IV. A row of bristles over first eye-row. A large flattened spine on inner side near tip of tibia I. Femur III not humped at tip; patella III somewhat swollen toward tip, with a black spot in front below, and above a large long spur; no dark streak above; tibia III constricted at base. Male palpus with snow-white hair on outside of tarsus. What I take to be the female has a white-haired clypeus, three black stripes on the venter, and the femora not distinctly pale on base; otherwise much like the female of *P. cæcatum* Htz. Length, ♂ 4 mm., ♀ 5 mm.

Male and female from Punta Gorda, Fla., and a male from Palm Beach, Fla.

Pellenes californicum, new species.

Eye-region black, rest of thorax pale reddish-brown, clothed with white hair; a median black spot behind, not reaching forward. Abdomen black above, a basal white band, a large transverse spot in front of middle and a large longitudinal spot just behind this, white. Venter pale, with three black stripes, sternum pale. Legs pale yellow; femur I, black above and on outer side, with a fringe of black scales on outer side near tip; patella and tibia I not fringed below, but with black hairs above on outer side; rest of leg pale yellow, with white hairs. Mandibles and cly-

peus brown, rather whitish in middle; tawny hairs over and between A. M. E. Femur III in front with several transverse curved black bars, not swollen at tip; patella III triangular, in front with many brown dots; tibia III with an oblique black line above, a broad pale stripe below this, and rest of front blackish. Male palpus has white hairs on outside of tarsus; a small curved hook at tip of tibia. Length, 4 mm.

One male from San Diego, California.

Pellenes tarsalis, new species.

Cephalothorax black on eye-region, a median black stripe behind, white each side, lower sides of cephalic part with white hair, blackish behind on lower sides. Abdomen black, two white dots over spinnerets, two white chevrons in front of these, and then a double row of (not very plain) dots to base; sides white; venter pale, with three black patches, two behind lung-slits, one at tip. Sternum and coxæ pale yellowish. Clypeus and mandibles white. Legs pale yellowish; femur I with a black stripe above, many black hairs above on patella and base of tibia I, white fringes on sides of tibia I; tarsus I jet black; a dense white brush under femora I and II outside near tip; a black spot at tips of femora III and IV; patella III simple. Male palpus white on outside. Length, 5 mm.

One male from San Pedro, California. Readily known by black tarsus I.

Pellenes arizonensis, new species.

Cephalothorax dark in eye-region and there clothed with golden scales; black stripe behind in middle, and white each side; lower margin broadly white, connected to white clypeus, which has a dense brush of yellowish-white scales in middle, above it are the 8 white bristles. Mandibles dark, clothed with long white hair, and shorter yellowish scales. Red hair around eyes of first row and above them is a broad red band. Abdomen pale yellow with a broad black stripe each side uniting over the spinnerets; venter black beyond lung-slits. Legs pale-yellow; all with many long white hairs; a brush of long black hair under femur, patella, and tibia I, not as long as *P. hirsutus*; fringe above tibia I black at base, nearly white at tip; white fringe above patella I; a brown mark at base of tibia IV; patellæ III unmodified. Male palpus with patella and femur white; tibia has a strong, straight projection. Length, 5 mm.

One male from Arizona (Townsend).

Pellenes klauseri Peckham.

Males agreeing with the description have the patellæ III enlarged on style of *P. peregrinus* P., the projection is more curved and larger, and on internal face there are two black spots below and a subapical blackish line, no stripe above. The anterior face of the tibia III shows a dark line above. The femur is humped at tip. Femur I has an oblique ridge of erect scales on upper inner side toward tip; and on under side near tip is a dense brush, whitish inside, blackish outside; tibia I has two rows of long white scales below, between the rows is a smooth space with the spines.

Males from Denver and Ft. Collins, Colo. Females from the

same localities, having the same abdominal markings, agree well with Peckham's description of *P. dolosus*.

Pellenes cœcatum Hentz.

Females taken on the same spot with males and evidently the same species agrees with Peckham's description of *P. sabulosus*. I have seen males and females from various localities between Long Island, N. Y., and Brazos Co., Texas. In some males the apical apophysis of patella III is a little longer than in others, but palpus and markings are the same.

Pellenes birgei Peckham.

Males from Cañon City, Colorado, agree with the description. They have the tibiæ and patellæ III and IV dark on sides and have a narrow dark line above. Females from the same locality and marked like males, have the clypeal marks and other characters of *P. politus* Peckham, which is based on a female.

EXPLANATION OF PLATES V AND VI.

- Fig. 1. *Lophocarenum frontalis*, side of cephalothorax.
- Fig. 2. *Lophocarenum frontalis*, palpus.
- Fig. 3. *Lophocarenum frontalis*, epigynum.
- Fig. 4. *Pardosa texana*, epigynum.
- Fig. 5. *Pellenes tarsalis*, palpus.
- Fig. 6. *Pardosa milvina*, epigynum.
- Fig. 7. *Zelotes aprilinus*, epigynum.
- Fig. 8. *Misumessus pallidulus*, epigynum.
- Fig. 9. *Sidusa arizonensis*, epigynum.
- Fig. 10. *Tmarus minutus*, palpus and epigynum.
- Fig. 11. *Herpyllus californicus*, epigynum.
- Fig. 12. *Apollophanes texana*, epigynum.
- Fig. 13. *Lycosa apicata*, epigynum.
- Fig. 14. *Phidippus basalis*, epigynum.
- Fig. 15. *Icius texanus*, epigynum.
- Fig. 16. *Pellenes californicum*, tibia III.
- Fig. 17. *Pellenes calcaratum*, tibia III.
- Fig. 18. *Sidusa borealis*, palpus.
- Fig. 19. *Pellenes calcaratum*, palpus.
- Fig. 20. *Apollophanes texana*, palpus.
- Fig. 21. *Lycosa apicata*, palpus.
- Fig. 22. *Pellenes arizonensis*, palpus.
- Fig. 23. *Allocosa sublata*, palpus.
- Fig. 24. *Pardosa parvula*, palpus.
- Fig. 25. *Pellenes californicum*, palpus.
- Fig. 26. *Gnaphosa utahana*, epigynum.